

Exhibit 1

1. Introduction

By the instant application (“STA Request”), General Dynamics Armament and Technical Products, Inc. (GDATP) requests that the Commission grant Special Temporary Authority (“STA”) to permit GDATP to operate the facilities (the “Facilities”) specified in the instant STA Request.

2. Purpose of the Operation

The testing specified in this STA Request will be conducted by General Dynamics Armament and Technical Products (GDATP), a business unit of General Dynamics. GDATP, a major producer of radomes for the Armed Forces of the United States, manufactures and tests radomes for varied customers.

In general, the testing performed at the Marion Test Range Facilities in Marion, VA will involve active, radiating testing related to GDATP’s contracts with various defense contractors and the United States Government for the development, manufacture, characterization, and acceptance testing of military and commercial radomes. The testing at the Marion Test Facilities is a critical part of the development and manufacture of military radomes supplied to the Armed Forces of the United States.

This specific STA Request applies to internal range development and characterization, and Independent Research and Development (IR&D) for the development, characterization, and testing of antennas and radomes. Although these efforts are not currently associated with any particular contract, such internal experimental use is essential to demonstrate and verify our ability to meet the needs required by our customers and to prepare for their business. It is critical for GDATP that this range be granted a license to radiate on this basis. This specific STA request reflects our current business driven needs to develop and prove this range for anticipated range work. This business development work is expected to be completed in mid May of 2007. An STA grant in mid December 2006 would allow our development work to complete within the scope of a six month STA authorization. Once this range is proven, GDATP anticipates contract related work for this range. Once contract work for this range is identified, we will inform the Commission of the intended contract use, and, if applicable, will pursue additional licensing.

This STA Request seeks frequency operations in the following frequency ranges: 6.0 to 10.6 GHz, 10.7 to 14.47 GHz, 14.5 to 15.35 GHz, 15.4 to 18.0 GHz, and 31.8 to 36 GHz. GDATP wishes to reference one of our Experimental STAs, file number 0697-EX-ST-2006, call Sign WC9XTM, granted on October 17, 2006, for an adjacent range on GDATP’s campus. Such prior grant overlaps the 8 to 18 GHz frequencies requested in this STA Request. This STA Request seeks additional frequency operations beyond those previously granted in 0697-EX-ST-2006 in certain bands from 6 to 8 GHz and 31.8 to 36 GHz. GDATP is aware that the Commission and/or other stakeholders are likely to identify carve out frequencies and bands within the requested bands; this license application does not seek authorization to radiate in those

restricted areas. **GDATP wishes to obtain permission to operate over as much of the requested frequency ranges as possible while minimizing difficulties in obtaining authorization.** Military systems operate over wide bands and GDATP needs the ability to evaluate and characterize our range through as much of the requested frequency range as possible in order to be able to support our customers' testing.

3. Why Grant of STA is in the Public Interest

Grant of a STA is requested in this case to permit range development and IR&D required to demonstrate and verify performance of the subject system for the development and testing of radomes. As stated above, the testing at the Marion Test Facilities is a critical part of the development and manufacture of radomes supplied to various defense contractors and the United States Government for the development, manufacture, characterization, and acceptance testing of military and commercial radomes.

For the foregoing reasons, review and approval of this STA Request is in the public interest, convenience and necessity.

4. Blanking Capabilities

GDATP understands that FAA or other stakeholders may require certain frequency blanking, or certain limited azimuth and/or elevation blanking in order to ensure that the Facilities do not pose a threat of interference to adjacent emitters. This is to confirm that the subject system has such blanking capabilities and that GDATP stands ready to work with the Commission to identify and implement any reasonable restrictions that may be required.

5. Other Issues

A. Transmitting Equipment

Manufacturer	Model	Frequency Band	Quantity	Experimental
Microwave Power, Inc.	L0618-32	6 to 18 GHz	1	Yes
Agilent	E8257D Analog Signal Generator	6 to 18 GHz	1	No
Microwave Power, Inc.	L3236-34	31.8 to 36 GHz	1	Yes
Agilent	E8257D Analog Signal Generator	31.8 to 36 GHz	1	No

B. Directionality/Orientation of Antennas

Band	Elevation (Vertical)	Azimuth (Horizontal)
All Bands	-2.5°	230° SW

3dB Beamwidth of Antennas (widest beam/worst case)

Band	3dB BW E (Vertical)	3dB BW H (Horizontal)
6 to 18 GHz	5.8°	5.8°
31.8 to 36 GHz	3.0°	3.0°

The ERP entered in our application gives the impression of high power, but the actual power into the transmit antenna is about 1 watt (less than many walkie-talkies). The ERP is deceptive because we are using an antenna with a very narrow beamwidth (35 dBi gain at 18 GHz). The ERP is the Equivalent or Effective Radiated Power. It is how much power would have to be input into a dipole antenna (very broad beamwidth) to equal the power density in the peak of the beam of our very narrow beam antenna. 1700 watts into a dipole would melt most dipoles. By using such a narrow beam antenna, we are greatly reducing the emissions in all directions except where we are measuring. Additionally, our receive area contains large amounts of RF absorber with over 35 dB of attenuation. The narrow beam of our antenna and the absorber in the receive area reduce our stray emissions greatly. Our test range is a very contained environment, and probably has significantly lower stray emission levels than if we hooked up our 1 Watt transmitter to a dipole and had an ERP of 1 Watt. It should be noted also that the ERP entered in our submission is for the worst case of the highest frequency/narrowest beamwidth.

C. Prevention of Interference

GDATEP hereby advises the Commission that the tests to be conducted under the requested Commission authorization are to be conducted on GDATEP's Marion, Virginia facilities. The test range is designed such that the transmitting antennas are pointed directly at the radome under test which is located 330 feet away on an elevated roofed porch with three walls. The walls have 6 inch broadband pyramidal RF absorber on them to absorb the RF energy from the transmitting antenna. Additional RF absorber covered panels will be used to further absorb the RF energy. The 3 dB beamwidth of the 6 to 18 GHz transmit antenna is contained within the porch area for the upper half of the band. The 3 dB beamwidth of the Ka Band (31.8 to 36 GHz) transmit antenna is mostly contained within the porch area. The range is located in a low area surrounded mostly by hills and trees. The range configuration is designed to minimize RF energy propagation outside of the actual test area. Please refer to the attached diagram of the range (Figure 1).

D. Stop Buzzer

The range shift supervisor, Gerald Hicks, will be personally supervising the testing and will be available by telephone at (276) 783-3121 x 1392. Mr. Hicks will act as a “stop buzzer” if any issues regarding interference arise during testing. The range operator will also be available by telephone at (276) 783-3121 x 1393 if Mr. Hicks cannot be reached.

Radar 4 Northeast Range

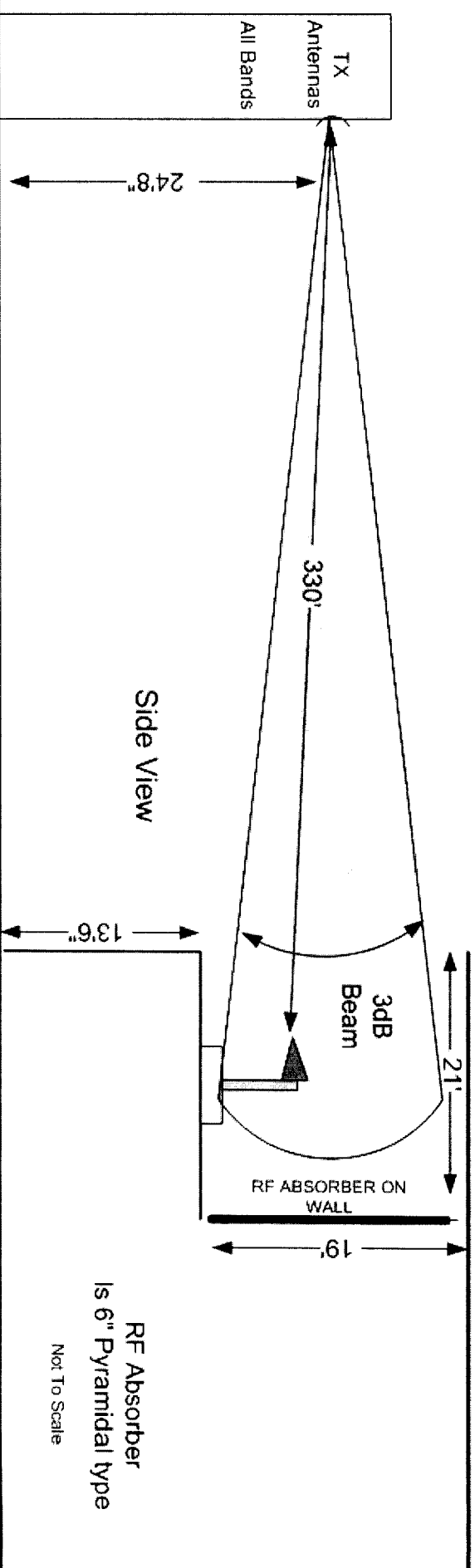
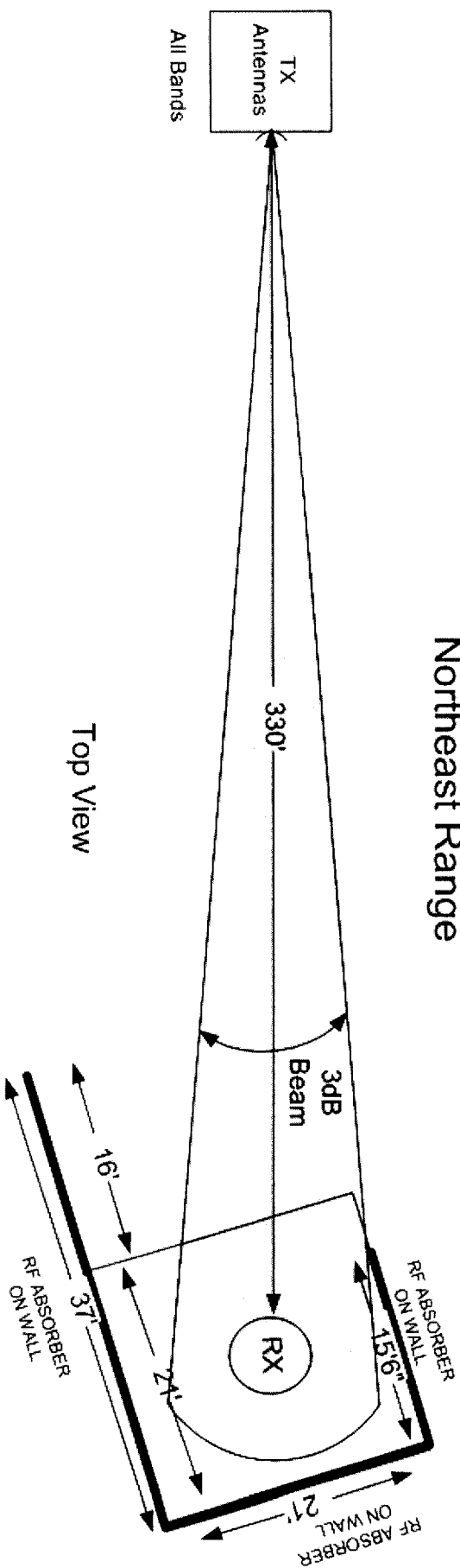


Figure 1